Truckee-Carson Irrigation District,
Lower Diagonal No. 1 Drain
Bounded by West Gate Road and Weapons Delivery Road,
Naval Air Station Fallon
Fallon
Churchill County
Nevada

HAER No. NV-6-K

HAER
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1-FALL,
1K-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
San Francisco, California

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HISTORIC AMERICAN ENGINEERING RECORD
TRUCKEE-CARSON IRRIGATION DISTRICT, LOWER DIAGONAL NO. 1 DRAIN
HAER NO. NV-6-K

Location: Lower Diagonal no. 1 Drain between the culvert under the West Gate Road and the culvert under Weapons Delivery Road on Naval Air Station Fallon, Fallon, Churchill County, Nevada

USGS Grimes Point Quadrangle, 7.5'
UTM Coordinates:
West Gate Road Culvert 11 4365940 351780
Weapons Delivery Road Culvert 11 4365840 352050

Date of Construction: This section of Lower Diagonal no. 1 Drain was contracted for in 1921 and completed by 1923.

Engineer: United States Reclamation Service, L.H. Taylor

Builder: Unknown

Present Owner: Truckee-Carson Irrigation District
2666 Harrigan Road
Fallon, Nevada 89406

Present Use: Drain agricultural field tail water to the Stillwater Point Reservoir; To be filled in August 1997

Significance: The Truckee-Carson Irrigation District is listed on the National Register of Historic Places as a National Register Thematic District. The District includes Lake Tahoe Dam, Boca Reservoir Dam, Derby Diversion Dam, Lahontan Dam, Lahontan Power plant, Carson River Diversion Dam, 69 miles of main canals, 312 miles of laterals and 345 miles of open drains. The Lower Diagonal no. 1 Drain is 10.8 of those 345 miles of open drains. Of that, the section of the Lower Diagonal no. 1 Drain that will be realigned is 1181 feet. It has not been determined which canals, drains, ditches and laterals are contributing elements to the District, so this section of the Lower Diagonal no. 1 Drain will be treated as a contributing element until these determinations have been made.

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Public Works
Naval Air Station Fallon
4755 Pasture Road
Fallon, Nevada 89496-5000

Date: August 1997

I. DESCRIPTION

The Lower Diagonal no. 1 Drain is a dirt-walled drain of approximately 10.8 miles in total length that drains tail water from agricultural fields along its length south and southeast of Fallon. The Lower Diagonal no. 1 Drain (Fig. 1) ends in the Lower Diagonal Deep Drain which terminates in the Stillwater Point Reservoir. The section that will be realigned is 1181 feet long (360 meters) and has had alterations only to the ends as culverts buried in the drain for the roads [Photographs 1-7]. The Drain is 42 feet wide (13 meters) and 16 feet deep (5 meters). No other features are located in this section of the Lower Diagonal no. 1 Drain other than a field drain feeds into the Lower Diagonal no. 1 Drain west of the Weapons Delivery Road culvert.

II. ARCHITECTURAL AND ENGINEERING INFORMATION

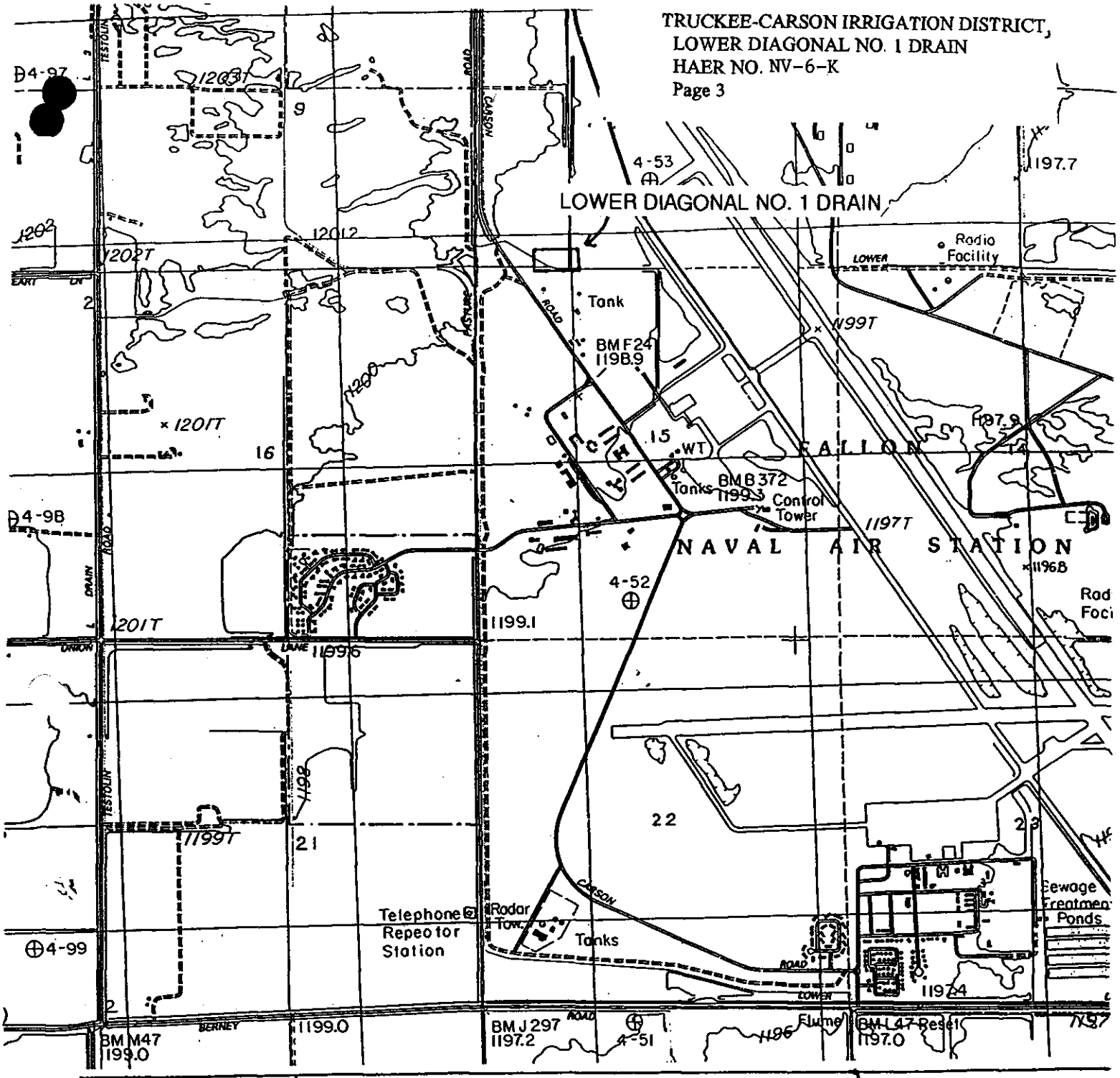
The Truckee-Carson Irrigation District (TCID) was designed by L.H. Taylor of the U.S. Reclamation Service who was in charge of the Nevada Office [Townley, 1977:31]. Francis G. Newlands had hired two men who did preliminary work that Newlands used to get the Reclamation Act through Congress [Townley, 1977:23]. William Hammond Hall did a preliminary sketch of the project and H.H. Bence surveyed the area.

Architectural and engineering information was gathered from the Truckee-Carson Irrigation District Thematic nomination form [Wieprecht etal., 1980]. Work began on the District in 1903, Lahontan Dam was finished in 1915 and the laterals and drains were finished by 1920-1928 [Townley, 1977:60]. This section of the Lower Diagonal no. 1 Drain (Fig. 2) was contracted for in 1921 [TCID, June 1997]. This was the time period when the first contract was written for excavation of the first 150 miles of drainage ditches [Townley, 1977:60]. Excavation of the drainage ditches for the first contract was completed by 1923. When completed, the Lower Diagonal no. 1 Drain was 10.8 miles long, 42 feet across at the ground surface and 16 feet deep. The slope of the sediments on the sides of the drain are 33 degrees. No concrete or rocks were used to strengthen the sides of the drain. Work on this section of the drain since its construction amounts to minimal maintenance to keep the drain clear of obstructions and vegetation.

It is unknown how the Lower Diagonal no. 1 Drain was excavated, but laterals and drains of that time period were excavated with drag lines. A field drain connected to the Lower Diagonal no. 1 Drain just west of the Weapons Delivery Road culvert. The southern section of the field drain south of the Weapons Delivery Road will be piped and connected to the realigned drain pipe.

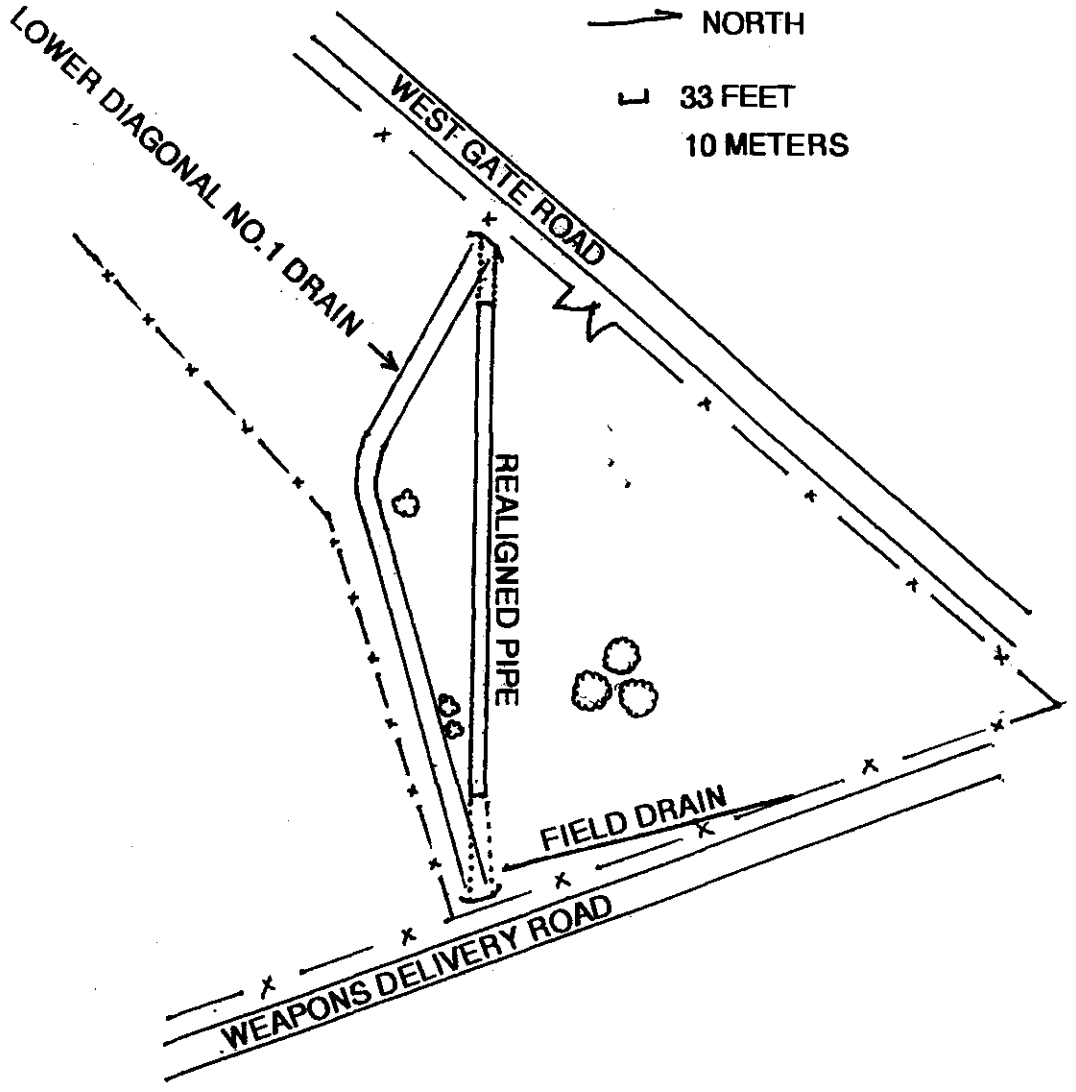
III. HISTORICAL INFORMATION

Historical information for the Truckee-Carson Irrigation District was gathered from the Thematic nomination form [Wieprecht etal., 1980] and Townley [1977]. The Newlands Reclamation Project (Truckee-Carson Irrigation District) was begun in 1903 and was one of the first projects authorized in 1902 by the Director of the Reclamation Service under the Newlands Reclamation Act. The Truckee-Carson Irrigation District was the first reclamation project to be constructed. It was designed and constructed to conserve water and deliver it for beneficial uses. Electrical power was both generated and delivered as a by product of this project.



True North	FIGURE 1. LOCATION OF LOWER DIAGONAL NO. 1 DRAIN.	GRIMES POINT, NV 7.5
NEVADA QUADRANGLE LOCATION	SCALE 1:24 000 1 0 1 MIL 1000 0 1000 2000 3000 4000 5000 6000 7000 FEET 1 .5 0 1 KILOMETER	

FIGURE 2. SKETCH MAP OF REALIGNED LOWER DIAGONAL NO.1 DRAIN



The District was designed as the result of investigations by the United States Geological Survey in 1889. The first feature of the Newlands reclamation project constructed in 1905 was Derby Dam. Later in 1905, construction on the Carson River Diversion Dam, the V Canal, the T Canal was completed with the completion of the Truckee Canal following in 1906. The Lahontan Power plant was finished November 11, 1911. Electrical power generated from the fall of the Truckee Canal water to the Carson River was used to power the construction equipment for construction of the Lahontan Dam. Electricity powered the main borrow pit shovel, a dragline excavator, a belt conveyor, the sand-cement batching plant, a cable way for transporting concrete and numerous pumps, blowers, drills and conveyors. The Lake Tahoe Dam was completed in 1913, Lahontan Dam in 1915 and Boca Dam in 1939.

In 1912, poor drainage caused a high water table on much of the irrigated land [Townley, 1977:54]. From 1921-1928, the District constructed a new drainage system to alleviate the high ground water table and poor drainage on the District. The drainage system was excavated in stages. The first 150 miles was excavated from 1921 to 1923 for the first TCID contract in 1921. It was during this time that the Lower Diagonal no. 1 Drain was constructed. In 1924, another US Reclamation Service report stated that additional drains were necessary. Congress appropriated money for the project and TCID approved in 1925. Excavation continued from 1926-1928

The original scope of the Truckee-Carson Irrigation District was to irrigate 400,000 acres. This number was reduced in the Omnibus Adjustment Act of 1926 and recently about 70,000 acres are irrigated.

Reference

Townley, John M., Turn This Water Into Gold. Reno: Nevada Historical Society, 1977.

TCID, Personal Communication with Joanne Corkill, Truckee-Carson Irrigation District, Fallon, Nevada, June 1997.

Wieprecht, Wilbur E., Wendell Bell, and Donald Abbe, _The Newlands Reclamation Project (Truckee-Carson Project). National Register Thematic Form. On File at the Nevada State Historic Preservation Office, Carson City, Nevada, 1980.